L 18479-63
ACCESSION NR: AP3005499

ertial term is omitted from the electron equation of motion. An appropriate steady state solution is written, and from the corresponding linearized perturbation equations, the dispersion equation is obtained for waves propagating transversely to the magnetic field. The cases of strong magnetic field (ion cyclotron frequency much greater than the ion collision frequency) and weak magnetic field are treated separately. In the case of strong magnetic field were, however, the electron collision frequency greatly exceeds the ion cyclotron frequency, it is found that instability occurs at frequencies of the order of the ion cyclotron frequency provided $ML^2(dn/ndx)^2/m > 1$, where M and m are the ion and electron masses, L is the electron Larmor radius, and n is the electron (and ion) particle density. In the case of weak magnetic fields it is found that instability occurs at frequencies large compared with the ion cyclotron frequency provided the square of the ratio of the ion cyclotron frequency to the ion collision frequency exceeds the ratio of the ion mobility to the electron mobility. The physical nature of the mathematically revealed instabilities is briefly discussed. "The author expresses deep gratitude to V.V.Kadomtsev, under whose direction this work was performed, and to A.A.Vedenov and Ye.P.Velikov for their interest in the work." Orig.art.has: 15 formulas.

ASSOCIATION: none	DATE ACQ: 06Sep63	ENCL: 00
SUBMITTED: 07Jun62	NO REF SOV: 002	OTHER: 001
SUB CODE: PH		

Card 2/2

AID Nr. 981-15   3 June

CYCLOTRON INSTABILITY OF INHOMOGENEOUS PLASMA (USSR)

Mikhaylovskiy, A. B., and A. V. Timofeyev. Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 3, Mar 1963, 919-921.

S/056/63/044/003/024/053

Longitudinal oscillations of inhomogeneous plasma are analytically investigated at low plasma pressures and at frequencies which are multiples of ionic cyclotron frequencies. The dispersion equations, which represent the generalization of the Rosenbluth, Krall, and Rostoker equation, are investigated for the presence of ion-induced cyclotron harmonics under the assumption that electron temperature is zero and that the wave is propagated transversely to a magnetic field. The analysis shows that instability is present whenever the oscillation frequency is close to any integral multiple of the cyclotron frequency. In such a case the waves are unstable whether they propagate in the direction of electron drift or in the direction of ion drift.

[VG]

Card 1/1

PISTUNOVICH, V.I.; TIMOFEYEV, A.V.

Heating of electrons in an anisotropic plasma. Dokl. AN SSSR
159 no.4:779-781 D '64   (MIRA 18:1)

1. Predstavleno akademikom M.A. Leontovichem.

KADOMTSEV, B.B.; MIKHAYLOVSKIY, A.B.; TIMOFEYEV, A.V.

Waves with negative energy in dispersive media. Zhur.eksp. i
teor.fiz. 47 no.6:2266-2268 D '64.   (MIRA 18:2)

TITLE: Negative energy waves in dispersive media

SOURCE: Zhurnal eksperimental'noy i teoret.cheskoy fiziki, v. 47, no. 6, 1964,
2266-2268

TOPIC TAGS: negative energy wave, dispersive medium, plasma wave, ionized plasma,
plasma conductivity

ABSTRACT: It is shown that nonequilibrium transparent media can exhibit anomalous

field with a configuration that is either anisotropic (with beams, or ...
... Another example is an inhomogeneous plasma in a strong magnetic

Card 1/2

L 23083-65
ACCESSION NR: AP5001850

of the wave, but to growth. A similar amplification effect arises when the wave
is reflected from the boundary of a medium if the dispersion is of the op-
posite sign. Related effects are the reflection of a sound wave from a supersonic
stream, and the production of pairs of waves with positive and negative energy radi-
turbed surface with infinite reflection coefficient (runaway emission of light
wave) or in an infinite plasma at

the directed velocity of electrons in a weakly ionized plasma in a longitudinal
electric field is much smaller than the thermal conductivity. Negative energy
effects can also be produced by nonlinear interactions between waves. Cases when
the negative-energy effect is only apparent and can be removed by conversion to
another coordinate system are discussed. Orig. art. has

ASSOCIATION: None

SUBMITTED: 23Jun64   ENCL: 00   SUB CODE: ME, GP

NO REF SOV:

TIMOFEYEV, A.V.

Instability of a gas discharge in a magnetic field devoid of
longitudinal current. Dokl. AN SSSR 152 no.1:84-87 S '63.
                                                    (MIRA 16:9)

1. Predstavleno akademikom M.A.Leontovichem.
                    (Electric discharges through gases)

L 18265-65   EWT(1)/EWG(k)/EPA/sc)-2/EP4(w)-2/EWP(t)/T-E-C(b)-2/EWA(m)-2

ABSTRACT: It is shown that the instability relative to the buildup of potential oscillations, observed previously in low-pressure plasma with anisotropic dis-

Card 1/2

L 18265-65
ACCESSION NR: AP5000912

authors are grateful to B. B. Kadomtsev and A. B. Mikhaylovskiy for a discussion
of the work." This report was presented by Academician M. A. Leontovich. Orig.
art. has: 1 figure and 3 formulas.

ASSOCIATION: None

SUBMITTED: 16Jun64

SUB CODE: ME   NR REF SOV: 006   ENCL: 00

                                                          OTHER: 002

Card 2/2

L 10673-66   EWT(1)/ETC/EWG(m)   IJP(c)   AT

ACC NR: AP5028325   SOURCE CODE: UR/0057/65/035/011/2083/2091

AUTHOR: Glasko, V.B.; Sveshnikov,A.G.; Semashko, N.N.; Timofeyev, A.V.

ORG: Physics Department, Moscow State University im. M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet,Fizicheskiy fakul'tet)

TITLE: On the deceleration of ions in an arc discharge in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki v. 35, no. 11, 1965, 2083-2091

TOPIC TAGS: plasma injection, magnetic mirror machine, gas discharge plasma, plasma beam interaction, ion beam, ion energy, charge exchange

ABSTRACT: The authors calculate the rate of deceleration of high energy ions owing to their passage through, and interaction with, an arc discharge plasma in a longitudinal magnetic field. The calculations were undertaken because of the practical use of an arc discharge to accelerate the dissociation of molecular ion beams employed for injecting plasma into adiabatic plasma-confining systems. The interaction of a high energy ion with the arc plasma is described by an equivalent viscosity, and the rate of energy loss is calculated for an ion whose Larmor orbit intersects the arc column. With the aid of this result and the one-dimensional Fokker-Planck equation, the energy distribution of the ions is calculated both for the steady state that is established during the injection pulse and for the nonsteady state between pulses. A numerical solution for ion energies between 15 and 62.5 keV is presented graphically.

UDC 533.9

Card 1/2

L 10673-66

ACC NR: AP5028325

3

For the conditions obtaining in the "Ogra" installation (Soviet thermonuclear mirror machine), the relaxation time for deceleration of the ions by their interaction with the arc plasma is 0.3 msec, and it is concluded that the density of high energy ions is determined mainly by this interaction and not by loss of high energy ions due to charge exchange collisions with neutral atoms. The authors thank L. I. Artemenkov for valuable discussions. Orig. art. has: 33 formulas and 4 figures.

44, 55

SUB CODE: 20   SUBM DATE: 12Mar65/   ORIG REF: 003   OTH REF: 002

Card 2/2

L 36227-66   EWT(1)   IJP(c)   AT

ACC NR: AP6024512

SOURCE CODE: UR/0386/66/004/002/0048/0051

AUTHOR: Timofeyev, A. V.

ORG: none

TITLE: Cyclotron radiation flashes

SOURCE: Zh eksper i teor fiz. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 2, 1966, 48-51

TOPIC TAGS: plasma containment, plasma oscillation, cyclotron frequency, plasma charged particle, dispersion equation

ABSTRACT: The author relates the explosive character of cyclotron radiation accompanied by ejection of particles in the form of bursts spaced periodically in time, as observed in a number of experiments on adiabatic plasma containment, with certain singularities in the development of cyclotron oscillations with negative energy, which can appear in an anisotropic plasma if the plasma-particle velocity distribution is far from equilibrium. The condition under which the oscillations can have negative energy are determined from the dispersion equation for the natural oscillations of the plasma, after which the nonlinear effects of interaction between oscillations with opposite sign of energy are evaluated. It is shown that the periodic bursts of radiation are due to energy pumping, induced by the nonlinear processes, between the growing and damped oscillations, and the growth of the burst is eventually limited by the available energy. Although the analysis is presented for a plasma with

Card   1/2

L 36227-66

ACC NR: AP6024512

anisotropic ions and hot electrons, it is easy to show that under certain conditions negative-energy oscillations are possible also in a plasma with cold electrons, and also in an electronic anisotropic plasma. The author thanks B. B. Kadomtsev for interest in the work and A. B. Mikhaylovskiy and V. I. Pistunovich for a discussion of the work. Orig. art. has: 2 formulas.

SUB CODE: 20/   SUBM DATE: 13May66/   ORIG REF: 004/   OTH REF: 002

Card 2/2

ACC NR: AP6033413   SOURCE CODE: UR/0057/66/036/010/1787/1799

AUTHOR: Timofeyev,A.V.

ORG: none

TITLE: Concerning fluted oscillations of a rarefied plasma in the presence of uncompensated space charge

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1787-1799

TOPIC TAGS: rarefied plasma, plasma stability, space charge, nonuniform plasma, initial value problem, Laplace transform

ABSTRACT: The author discusses fluted oscillations in a rarefied plasma in which the ion Larmor radius is much smaller than the ion Debye radius and there is a large uncompensated space charge. From Poisson's equation and the hydrodynamic equations of continuity, linearized for small perturbations of the particle densities, there is derived a differential equation for the self consistent perturbation of the electric potential. If the space charge density is sufficiently high this equation has singular points where the particle velocity becomes equal to the phase velocity of the waves. The equation is modified in the neighborhood of the singular points by inclusion of the effect of the finite value of the Larmor radius. It is found that if the electric field due to the uncompensated space charge is sufficiently strong and varies linearly with distance, the modified equation may have no localized eigenfunctions. The

Card 1/2

ACC NR: AP6033413

initial value problem for this case is solved by a Laplace transformation technique, and it is found that the amplitude of an arbitrary perturbation decreases with time t, being proportional to $\exp(-at^2)/t^2$. The author thanks B.B.Kadomtsev for his interest in the work and for valuable discussions. Orig. art. has: 48 formulas.

SUB CODE: 20   SUBM DATE: 09Nov65   ORIG. REF: 012   OTH REF: 004

Card   2/2

PANOVA, N.M.; SOKOLOV, A.D.; TIMOFEYEV, A.V.; FEDOROV, S.V.

Effect of the quality of mummy on the dielectric strength of
molding powders. Plast. massy no.12:62-64 '60.   (MIRA 13:12)
      (Plastics--Electric properties)   (Pigments)

SOKOLOV, A.D.; MIKHAYLOVA, T.N.; TIMOFEYEV, A.V.; YAKOBSON, B.V.

Factors affecting the hardening of novolac molding powders. Plast.-massy no.10:22-24 '61.   (MIRA 15:1)

(Plastics--Molding)

BAL'SHAKOV, F.I.; CHIRVA, B.A.; FARBMAN, B.V.; SOKOLOV, A.D.; TIMOFEYEV, A.V.

Use of peat wax as a lubricant for molding powders. Plast. massy
no.5:62-65 '62.
(MIRA 15:8)

TOPIC TAGS: phenolic aldehyde, pressing powder, filler, coal, ash

ABSTRACT: This Author Certificate presents a method for obtaining phenolic aldehyde pressing powders with the application of mineral filler. To broaden the assortment of fillers and lower the cost of pressing powders, ash resulting from burning of brown coal is used as the filler.

NO REF SOV: 000   OTHER: 000

Card 1/1

L. 35341-66   EAT(m)/EWT(j)/T   IJP(c)   WW/GRW/RM

ACC NR: AP6009871   (A)   SOURCE CODE: UR/0413/66/000/004/0068/0068

INVENTOR: Petrov, K. D.; Sokolov, A. D.; Kagucheva, Ye. S.; Timofeyev, A. V.; _19_
Slozhenikina, N. M.; Soldatova, Ye. A.   _B_

ORG: None

TITLE: Preparation of molding material with novolak resin. Class 39, No. 178978

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 68

TOPIC TAGS: molding material, novolak resin

ABSTRACT: An Author Certificate has been issued describing a method using dry rolling
for making a molding material from novolak resin and a nitrogen-containing organic
compound. To extend the variety of molding materials with high dielectric properties
anhydroformaldehyde aniline is suggested as the oxygen-containing organic compound.
                                                                          [LD]

SUB CODE: 11/ SUBM DATE: 14Jul62

Card 1/1

L 39686-66   EWP(j)/EWT(m)/T   IJP(c)   RM/CD-2

ACC NR: AP6009533   (N)   SOURCE CODE: UR/0413/66/000/005/0069/0069

INVENTOR: Pevzner, L. V.; Akutin, M. S.; Mikheyev, I. P.;
Faydel', I. Ya.; Sokolov, A. D.; Timofeyev, A. V.

ORG: none

TITLE: Method for obtaining compacts. Class 39, No. 179466

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,
no. 5, 1966, 69

TOPIC TAGS: polyvinyl chloride, phenolformaldehyde, compact

ABSTRACT: An Author Certificate has been issued for a method of ob-
taining compacts by combining phenol resin with polyvinyl chloride in
the filler, using a mechanochemical   method. Phenol resins and aniline-
phenolformaldehyde resins are used to obtain materials which are
impervious to water, chemical, and tropical conditions.   [NT]

SUB CODE: 11, 07/   SUBM DATE: 27Nov64/

Card 1/1 o.l   UDC: 678.632.743.22.067.023.32

TIMOFEYEV, A.V., zasluzhennyy agronom Ukrainskoy SSR.

Farming in Iraq. Zemledelie 23 no.10:82-84 O '61. (MIRA 14:9)
(Iraq--Agriculture)

TIMOFEYEV, A.V., inzh.

Structural defects in the E-10011 excavator. Mekh. stroi. 18
no.12:27 D '61.   (MIRA 16:7)

(Excavating machinery)

SOKOLOV, A.A.; BEL'KEVICH, P.I.; CHULYUKOV, M.A.; NIKONOV, M.N.;
OZOLINA, Z.D.; TIMOFEYEV, A.V.

Research and experimental designing and prospects for their
further development. Torf. prom. 37 no.5:12-18 '60. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy
promyshelnnosti (for Sokolov). 2. Institut torfa AN BSSR (for
Bel'kevich). 3. Kalininskiy torfyanoy institut (for Chulyukov).
4. TSentral'naya torfo-bolotnaya opytnaya stantsiya (for Nikonov).
5. Vsesoyuznyy institut udobreniy i agropochvovedeniya (for
Ozolina).

(Peat industry)

USYUKIN, I.P.; SHELYNIKOV, V.M.; TIMOFEYEV, A.V.; SHCHEKINA, G.N.

Effect of carbonic acid on the solubility of acetylene in acetone and methanol at low temperatures. Nefteper. i neftekhim. no.11:35-40 '63.   (MIRA 17:5)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.

KITAYNIK, A.U.; LARIONOV, N.N., zhurnalist; BRATCHIKOV, B., zhurnalist; BYKOV, V., zhurnalist; VOLKOV, Ye., zhurnalist; VOSKRESENSKIY, N., zhurnalist; GERVASH, A., zhurnalist; GORDIN, A., zhurnalist; GILENKO, A., zhurnalist; DASHKOV, S., zhurnalist; DROBOTUSHENKO, A., zhurnalist; YERSHOV, N., zhurnalist; ZHULYABIN, A., zhurnalist; KRASNOV, I., zhurnalist; LUCHINETSKIY, Ye., zhurnalist; LYKOV, M., zhurnalist; MEYSAK, N., zhurnalist; PADERIN, G., zhurnalist; PAL'M, A., zhurnalist; PONOMAREV, P., zhurnalist; RUBINA, M., zhurnalist; TAGIROV, T., zhurnalist; TIMOFEYEV, B., zhurnalist; YANSHIN, V., zhurnalist; TRUBITSIN, N.A., otv.red.; OMBYSH-KUZNETSOV, S., red.izd-va; TOBUKH, A., tekhn.red.

[Novosibirsk; a collection] Novosibirsk; sbornik. Novosibirskoe knizh-noe izd-vo, 1961. 180 p.
(MIRA 15:5)
(Novosibirsk--History)   (Novosibirsk--Description)

MARKOV, A.A., prof.; STEPANOVA, N.I., starshiy nauchnyy sotrudnik;
    TIMOFEYEV, B.A., starshiy nauchnyy sotrudnik

Studying toxoplasmosis in swine. Veterinariia 42 no.7:45-46
                                                (MIRA 18:9)
Jl '65.

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

TIMOFEYEV, B.A., starshiy nauchnyy sotrudnik

    Globidiosis in sheep. Veterinariia 42 no.7:47-50 Jl '65.
                                         (MIRA 18:9)

    1. Vsesoyuznyy institut eksperimental'noy veterinarii.

MARKOV, A.A., prof.; SUPRUNOVA, N.I., starshiy nauchnyy sotrudnik;
TIMOFEYEV, B.A., mladchiy nauchnyy sotrudnik

Toxoplasmosis in sheep. Veterinariia 41 no.5:66-69 My '64.
(MIRA 18:3)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

TIMOFEYEV, B. A. (Junior Scientific Worker, All-Union Institute of Experimental Veterinary Medicine [VIEV]).

"Role of swine trichomonads in the epizootiology of trichomoniasis in cattle"

Veterinariya, vol. 39, no. 9, September 62, p. 37

16.8000

S/194/61/000/007/024/079
D201/D305

AUTHOR: Timofeyev, B.L.

TITLE: Mechanization of the process of determining minimal
             variants of relay systems in the class of normal
             functions disjunction

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
             no. 7, 1961, 52-53, abstract 7 V390 (V sb. Avtomat.
             upravleniye, M., AN SSSR, 1960, 345-353)

TEXT: The classification of methods (M) of minimizing relay cir-
cuits is given. The classification is based on the method of deter-
mining simple terms. All M are divided into 2 groups. To the first
group belong all M, in which simple terms are obtained by any of the
transformations of the original formula, to the second – those M in
which simple terms are obtained by comparison of the tentative with
the given function as represented in the form of a manipulation
chart. The characteristics are given of two M of minimization.

Card 1/2

S/194/61/000/007/024/079
D201/D305

Mechanization of the process...

With many variables - the problem of minimization of relay circuits
is too cumbersome for the human mind. The mechanization of the pro-
cess of attaining min. initial forms of functions of genuineness is
considered. The machine for minimization consists of two parts, in
accordance with the algorithm which it represents. The first part
of the machine produces all simple terms of the given function while
the other makes out of them its minimized form. The bloc-diagram
of the machine is given. 4 figures. 18 references. /Abstracter's
note: Complete translation_/

Card 2/2

LEBEDEVA, A.I.; TIMOFEYEV, B.V.

Organic remains in lower Cambrian "blue clays" [with summary in
English]. Vest.LGU 13 no.12:42-48 '58.   (MIRA 11:12)
                   (Russian Platform—Paleontology)

TIMOFEYEV, A.V.

New design for the milling drum. Torf.prom. 35 no.2:25 '58.
(MIRA 11:5)

1. Rukovoditel' gruppy filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta torfyanoy promyshlennosti.
(Peat machinery)

TIMOFEYEV, B. Captain

"Physical Training on Days of Preconditioning for Flights," Krasnaya Zvezda, p.2, 16 Jun 55

Translation of article - D 311964, 17 Aug 55

TIMOFEYEV, B. (Sr. Lt.)

"Our Experience With Conducting Athletic Games," translated from the article "Pilots' Athletic Games," Vest. Vozd. Flota, No.5, 1955, pp 47-51.

D 311967, 12 Aug 55

TIMOFEYEV, B., k and geologo-mineralog.nauk

Traces of life in meteorites. IUn.tekh. 7 no.1:37-39 Ja '63.
(MIRA 16:5)

(Plenty of worlds)

TIMOFEYEV, B.

AID P - 1984

Subject   : USSR/Aeronautics

Card 1/1   Pub. 135 - 8/20

Authors   : Bryanov, I., Gorbov, F., Lt. Cols. of the Medical Service.
               and Timofeyev, B., Sen. Lt.

Title   : Flyers' sport games

Periodical : Vest. voz. flota, 5,   47-51, My 1955

Abstract   : In the first part of this article, "Some problems of
               physiology", the author explains physiological reactions
               in flight and the possibility of developing certain
               necessary flying qualities. In the second part, "Our
               experiment in leading sport games", the author cites the
               advantages of games over other physical exercises and
               gives examples of special training which may be acquired
               in games.

Institution: None

Submitted   : No date

TIMOFEYEV, B., inzh.-polkovnik

Self-contained high-frequency telephone equipment with semiconductor triodes(from "Telettra," Technical Information Bulletin, Milano, April 1956); Voen. sviaz. 16 no. 6:46-47 Je '58.   (MIRA 11:7)
          (Italy--Telephone--Equipment and supplies)

SOV/26-59-4-42/43

AUTHOR: Timofeyev, B.A. (Rzhev)

TITLE: Spring Bursting (Vesenneye "vypuchivaniye" predmetov)

PERIODICAL: Priroda, 1959, Nr 4, pp 126-127 (USSR)

ABSTRACT: The author describes a peculiar natural phenomenon
            occuring early in spring after the last snow has
            gone. Various objects such as posts, sticks, and
            pillars, etc., are creeping out of the earth, which
            is swelling and thus also causing rifts and ruptures
            in roads. There are 2 photos.

Card 1/1

TIMOFEYEV, B. A., inzh.

Investigating the noise of reducing gears with bodies and caps
made of various materials. Vest. mashinostr. 42 no.10:17-19
O '62.
(MIRA 15:10)

(Gearing—Noise)

TIMOFEYEV, B.A.

Biometrical study of Trichomonas in swine and Tritrichomonas
foetus (Riedmueller, 1928). Trudy VIEV 26:148-156 '62.
(MIRA 16:2)

1. Laboratoriya protozoologii Vsesoyuznogo instituta eksperimental'-
noy veterinarii.
(Trichomonas)   (Parasites—Swine)

TIMOFEYEV, B.A., kand.veterin.nauk

Pathogenicity of trichomonads from the nasal cavity of swine with infectious atrophic rhinitis. Veterinariia 40 no.9:25-26 S '63.

(MIRA 17:1)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

GRISHUKOV, L.S., inzh. (g.Leningrad); LUPKIN, D.M., dotsent (g.Leningrad); TIMOFEYEV, B.A., inzh. (g.Leningrad)

Main line electric locomotive operated on direct and alternate current. Zhel.dor.transp. 42 no.5:56-59 My '60. (MIRA 13:9)
(Electric locomotives)

TIMOFEYEV, Boris Aleksandrovich; GNUTIKOV, P.I., podpolkovnik, redaktor;
ZUDINA, M.P., tekhnicheskiy redaktor

[New multichannel telephone communication system of the U.S.Army]
Novye mnogokanal'nye telefonnye sistemy sviazi v Armii SShA.
Moskva, Voen.izd-vo M-va obor. SSSR, 1957. 109 p.   (MIRA 10:11)
        (Telephone)

MIKULINSKIY, M. A., inzh.; SISIN, A. G., inzh.; TIMOFEYEV, B. A., inzh.; BULATOV, V. G., inzh.

Analytical method of determining the optimum parameters of dumps when truch haulage is used. Izv. vys. ucheb. zav.; gor. zhur. 5 no.8:18-25 '62.   (MIRA 15:10)

(Mine haulage)

TIMOFEYEV, B.V.

Generalized formula for deflection angles of an eccentric, loaded, plane rectangular die block in an elastic semi-space. Soob.AN Gruz. SSR 14 no.8:487-492 '53.

(MLRA 7:5)

1. Tbilisskiy filial Vsesoyuznogo n.i. instituta elektrifikatsii sel'skogo khozyaystva Akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina. Predstavleno deystvitel'nym chlenom Akademii K.S.Zavriyevym.
(Foundations) (Mathematical physics)

TIMOFEYEV, Boris Aleksandrovich; GNUTIKOV, P.I., podpolkovnik, red.;
ZUDINA, M.P., tekhn.red.

[New multichannel telephone communication systems of the U.S.
Army] Novye mnogokanal'nye telefonnye sistemy sviazi v Armii
SShA. Moskva, Voen.izd-vo M-va obor.SSSR, 1957. 109 p.

(MIRA 13:10)

(United States—Military telephone)

KASUMOV, R.Ya.; TIMOFEYEV, B.B.

Problems concerning errors and data processing in measuring the frequency of string transducers in systems of centralized control with electronic digital computers. Izv. AN Azerb. SSR. Ser. fiz.- mat. i tekh. nauk no.4:21-31 '63.
(MIRA 16:12)

Timofeyev, B.B.

USSR/Magnetism - General Problems.

F-1

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11953

Author : Timofeyev, B.B.

Inst : Tbilisi Scientific Research Institute for Construction and Hydroelectric Power

Title : Surface Effect in Massive Ferromagnetic Conductors.

Orig Pub : "Elektrichestvo", 1956, No 10, 66-70

Abstract : It is proposed to approximate the fundamental curve of magnetization of a ferromagnet by means of the expression $B = AH + N \tan^{-1} (LH) - DH/1 \quad MH^2$, where A, D, L, M, and N are coefficients. It is shown that such an approcimation describes sufficiently accurately the magnetization curves of low-carbon steel and of highly-alloyed transformer steel. Expressions are given for the fundamental harmonic of the induction B of the permeability for

Card 1/2

USSR/Magnetism - General Problems

F-1

Abs Jour   : Ref Zhur - Fizika, No 5, 1957, 11953

alternating current μ , the ac impedance Z of the conductor, and for the apparent magnetic permeability μ_η in the case of the surface effect.
3_n. All the derivations are based on neglecting the higher harmonics.

Card 2/2

SOV/137-58-10-21733

Translation from: Referativnyy zhurnal, Metallurgiya, 1958 Nr 10 p 182 (USSR)

AUTHOR: Timofeyev, B. B.

TITLE: Measurement of Stresses in Steel by the Magnetoelastic Method
            (Izmereniye napryazheniy v stali magnitouprugim metodom)

PERIODICAL: V sb. Eksperim. izuch. mekhan. usiliy v gidrogeneratorakh.
            Moscow-Leningrad, Gosenergoizdat, 1957, pp 152-167

ABSTRACT: The magnetoelastic effect represents the physical inter-
            dependence between the state of stress and the magnetic prop-
            erties of steel. Therein the maximum magnetic permeability
            (MP) undergoes the sharpest variation as a result of mechan-
            ical stresses, and this is properly called the magnetoelastic
            effect of steel. The latter manifests itself in different ways
            depending upon the mutual orientation of the mechanical stres-
            ses and the magnetized layer. In the complex-stressed state
            the three principal values of MP can be represented as the
            principal values of the MP tensor, the directions of which
            always coincide with the principal directions of the stress
            tensor. The magnetization is produced by direct-current and
            coil gage elements. The latter are seldom used. The

Card 1/2

. Measurement of Stresses in Steel by the Magnetoelastic Method

direct current gage element consists of two power contacts with the specimen in the space between which two measuring contacts are located. When alter nating current is passed a voltage drop is observed between the measuring contacts which is related to MP and consequently to the mechanical stres-es: therein the reactive component of the voltage drop is the more characteristic. A localized current supply is applied for nonuniform field in massive spec: mens. To visualize fully the stress distribution in the surface layers ot steel articles, it is necessary to conduct simultaneous measurement ot (1) the voltage drop and (2) the diffusion currents. Three and four electrode probes serve to achieve the first purpose and an indicator of magnetic aniso tropy, IMA, developed earlier is employed to achieve the second purpose. A detailed description of the construction of the IMA 1 and some data of its operation are adduced. The reliability of the readings of the IMA 1 ard the correctness of the gage action are systematically checked with a magnetic anisotropy standard.

1. Steel--Stresses   2. Steel--Magnetic properties   3. Stress   V. O.
analysis--Equipment

Card 2/2

TIMOFEYEV, B. B. Doc Tech Sci -- (diss) "Electromagnetic fields and the

peculiarities of the utilization of magnetoelastic electrode pickups."

Tbilisi, 1958. 27 pp (Min of Higher Education USSR. Georgian Order of Labor

Red Banner Polytechnic Inst im S. M. Kirov), 100 copies. Bibliography: pp 26-27

(KL, 13-58, 95)

TIMOFEYEV, B.B. (Tbilisi).

Skin effect in conductive plates having lumped contacts. Izv. AN
SSSR. Otd. tekh. nauk no.9:11-18 S '57.   (MIRA 10:12)
                        (Electric conductors)
                        (Differential equations, Partial)

USSR/Electricity - Instruments, Electrical Oct 49 | Wattmeters, Electrodynamic

"A High-Sensitivity Electrodynamic Wattmeter," B. B. Timofeyev, Cand Tech Sci, 2 3/4 pp

"Elek Stants" No 10

Describes portable electrodynamic OMOVZ instruments (optical reading with multiple reflections from a rotating mirror) developed in Elec Eng Lab, Tbilisi Sci Res Inst of Constr and Hydropower, which can be used not only as a zero indicator but as a high-sensitivity low-range wattmeter with suitable temperature

150T15

USSR/Electricity - Instruments, Electrical Oct 49 (Contd)

compensation in the voltage circuit. Obtains full-scale deflection for currents of 1.5-2.5 x 10^{-4} amp with internal resistance of 400-500 ohms, which correspond to power consumption of 15-25 x 10^{-6} VA full scale. Found meter to have several advantages over usual bridge schemes and vibrating galvanometers.

TIMOFEYEV, B., B.,

150T15

TER-GAZARYAN, G. N., TIMOFEYEV, B. B.

Dynamos

Out-of-balance operation of a heavy dyrogenerator. Elek. sta. 23 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November   1952 Uncl.

Timofeyev, B. B.

AID P - 1211

Subject   : USSR/Electricity

Card 1/1   Pub. 27 - 6/34

Author   : Timofeyev, B. B., Kand. of Tech. Sci.

Title   : Skin effect in massive ferromagnetic bodies with weak
                fields and negligible hysteresis

Periodical   : Elektrichestvo, 12, 29-32, D 1954

Abstract   : The author develops a method of solving the problem of
                skin effect caused by a sinusoidal current flowing in
                massive ferromagnetic conductors. He accounts for the
                nonlinearity of permeability when fields on the surface
                are weak. The solution is based on the utilization of
                the close relationship existing between permeability and
                field intensity, and disregards histeresis losses. The
                author expresses the curve of static permeability as the
                sum of a constant and of a sinusoidal function. Three
                diagrams, 3 Russian references (1939, 1948, 1949).

Institution : Tbilisi Scientific Research Institute of Construction
                and Water Power Engineering (TNISGEI)

Submitted   : F 22, 1954

Subject   :   USSR/Electricity

AID P - 3446

Card 1/2   Pub. 27 - 13/32

Author   :   Timofeyev, B. B., Kand. of Tech. Sci.

Title   :   Calculation of conditions of concentrated electrodes
                in magneto-elastic measurements

Periodical :   Elektrichestvo, 10, 53-56, O 1955

Abstract   :   The author discusses the problem of surface distri-
                bution of the electromagnetic field at the inflow of
                the a-c into a massive conducting body through one
                or several conductors perpendicular to the body's
                surface. Permeability and specific conductivity of
                the body are assumed to be constant. A method of
                calculating voltage drop on the surface is in-
                vestigated for the case of a separate contact,
                allowing for a non-linear relationship between
                permeability and field intensity. A numerical

AID P - 3446

Elektrichestvo, 10, 53-56, O 1955

Card 2/2   Pub. 27 - 13/32

example is presented and analytical solutions are
favorably compared as closely coinciding with
experimental data. The author presents his con-
siderations on the selection of the current value
at which the manifestation of the magnetoelastic
effect attains its maximum. A corresponding numerical
example is given. One photograph, 3 diagrams, 3 Soviet
references (1949-1954).

Institution : Tbilisi Scientific Research Institute of Installations
and Hydro Power Engineering

Submitted   : S 30, 1954

TIMOFEYEV, B.B. (Tbilisi)

A.C. current penetration into metallic solids through point contacts.
Izv. AN SSSR. Otd. tekh. nauk no.3:28-38 Mr '56.   (MLRA 9:7)
        (Electric conductivity)

TIMOFEYEV, B.B., kandidat tekhnicheskikh nauk.

Resistance of steel to alternating current.   Elektrichestvo no.5:
50-54 My '56.
(MLRA 9:8)

1. Tbilisskiy nauchno-issledovatel'skiy Institut sooruzheniy i
gidroenergetiki.
(Steel--Electrical properties) (Electric conductors)

TIMOFEYEV, B.B

PA - 3112

AUTHOR:
TITLE:

PERIODICAL:

Candidate of technical Science TIMOFEYEV, B.B.
An Instrument for Investigating Magnetic Anisotropy.
(Pribor dlya issledovaniya magnitnoy anizotropii. Russian).
Elektrichestvo, 1957, Nr 5, pp 72 - 74 (U.S.S.R.)
Received: 6 / 1957   Reviewed: 7 / 1957

ABSTRACT:

A method is described by the help of which one can quickly determine
the degree of magnetic anisotropy as well as the orientation of its
main directions without destroying the engendered products. The
plan shows that with the presence of a homogeneous magnetic aniso-
tropy and when the two main directions lie parallel to the surface
of the body a distortion of the magnetic field takes place in the
vicinity of the point of connection of the conductors, and a dis-
persion flow appears which crosses the surface of the body. A cer-
tain divergence of the phases from the dispersion and current flow
as well as the fact of a form distortion of magnetic induction curve
(caused by the fact that the demagnetization process does not run
linearly or with equal sign) does not injure the essential proper-
ty of the dispersion fields in question. This property consists of
the fact that the "zero lines" (lines along which the perpendicular
projection of the vector of the magnetic field is equal to zero)
coincide with the main directions of the magnetic anisotropy. There
follows a description of a simple apparatus for the investigation
of the magnetic anisotropy. The chief defect of this machine is the

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An Instrument for Investigation Magnetic Anisotropy.   PA - 3112

very strong sensitivity of its indicators to foreign magnetic fields.
The appearance of the magnetic anisotropy is dependent on the vol-
tage of the magnetic field and hence on the intensity of the current.
This is to be controlled very strictly during the process and the
current frequency is to be held constant. (With 5 illustrations
and 2 Slavic references.)

ASSOCIATION: The Scientific Research Institute of Work and Water Energy of Tiflis.
                (Tbilisskiy nauchno-issledovatel'skiy institut sooruzheniy i gidro-
PRESENTED BY: energetiki.)
SUBMITTED:
AVAILABLE: 15.1o.1956
                Library of Congress

Card 2/2

Timofeyev, B B.

AUTHOR: Timofeyev, B. B. (Tbilisi)   24-9-2/33

TITLE: Surface effect in a conducting plate in the case of
concentrated contacts. (Poverkhnostnyy effekt v
provodyashchey plastine pri sosredotochennykh kontaktakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh
Nauk, 1957, No.9, pp.11-18 (USSR)

ABSTRACT: It is of theoretical and practical interest to determine
the character of the distribution of alternating current
and of the magnetic flux of industrial or sonic frequency
in the depth of a metallic plate in the case that the
current flow proceeds through concentrated contacts. The
necessity for solving such a problem arose in conjunction
with the development of a magneto-elastic pressure gauge.
Transverse dimensions of the diaphragm used in pressure
gauges are usually so large relative to their thickness
that it is not necessary to take into consideration the
influence of the diaphragm edges on the surface effect
in the neighbourhood of concentrated contacts located near
to its centre. This corresponds to the assumption of a
plate of infinite dimensions. For solving this problem
the results are used which were obtained by the author in
an earlier paper "Penetration of a.c. into a metallic body
through concentrated contacts" (fed via rectilinear wires

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Surface effect in a conducting plate in the case of concentrated contacts.

24-9-2/33

which are perpendicular to the surface of the body) (same journal, 1956, No.3). The use of the derived equations is illustrated on an example relating to determining the intensity of the current flowing across a plate delimited by a circle of the radius r cut at the central surface of the plate, the centre being the origin of the coordinates and assuming that the diameter of the conductors feeding the current is infinitely small and the intensity of the current flowing through one of the conductors is equal to the current flowing through the other conductor. For this example the results are plotted in graphs, Figs. 2 and 3. It can be seen that the fraction of the current flowing across the plate decreases relative to the current flowing through the lead with increasing relative thickness of the plate; in the case of very thick plates, the current flowing through the plate becomes insignificantly small and the current flowing along the surface layers of the plate becomes practically equal to the current flowing through the leads. In the case of very small relative plate

Card 2/3 thicknesses, almost the entire current flows through the plate. The here derived formulae, eqs. (21), (22) and

24-9-2/33

Surface effect in a conducting plate in the case of concentrated contacts.

(26) can also be derived by applying the "primary excitations" of Zommerfel'd, A. (Ref. 3).
There are 3 figures and 3 references, all of which are Slavic.

SUBMITTED: September 13, 1956.

AVAILABLE: Library of Congress.

Card 3/3

TIMOFEYEV, B.B., doktor tekhn. nauk, otv. red.; BEREZINETS, L.F.,
red.

[Cybernetics and computer technology] Kibernetika i vy-
chislitel'naia tekhnika. Kiev, Naukova dumka, 1964. 118 p.
                                          (MIRA 17:12)
1. Akademiya nauk URSR. Kiev. Institut kibernetiki.

TITLE: High-efficiency broadband modulation magnetic heads

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1964, 37-40

TOPIC TAGS: magnetic head, magnetic data writing, magnetic data reading

ABSTRACT: The essential shortcomings of conventional reading heads (low

the bias and output circuits, and ensures a high output voltage of

Card 1/3

L 22135-65

ACCESSION NR: AP5001741

a   k tu   k within 0—50 kc
s   red The a-c bias frequency   rtional ferrite
type. The design features of a sing   35-mm tape head
are reported Orig. art. has: 5 figures

ASSOCIATION: Institut kibernetiki AN UkrSSR (Institute of Cybernetics,
AN UkrSSR)

ENCL: 01

SUBMITTED: 00
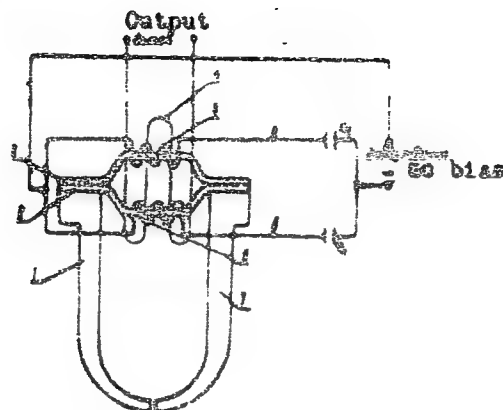
SUB CODE: DP   NO REF SOV: 002   OTHER: 001

Card 2/3

L 22135-65

ACCESSION NR: AP5001741

Output

so bias

New magnetic head

Card 3/3

GLUSHKOV, V.M., otv. red.; KUKHTENKO, A.I., zam. otv. red.;
    BLAGOVESHCHANSKIY, Yu.V. red.; DORODNITSYN, A.A., red.;
    YERSHOV, A.P., red.; LYAPUNOV, A.A., red.; MOSKALEV,
    I.S., red.; PUKHOV, G.Ye., red.; ROSTUNOV, T.I., red.;
    SAMOKHVALOV, K.G., red.; STOGNIY, A.A., red.; TIMOFEYEV,
    B.B., red.; SHCHERBAN', A.N., red.; LETICHEVSKIY, A.A.,
    red.; KAPITONOVA, Yu.V., red.; MEL'NIK, T.S., red.

[Problems of theoretical cybernetics] Voprosy teoretiche-
skoi kibernetiki. Kiev, Naukova dumka, 1965. 209 p.
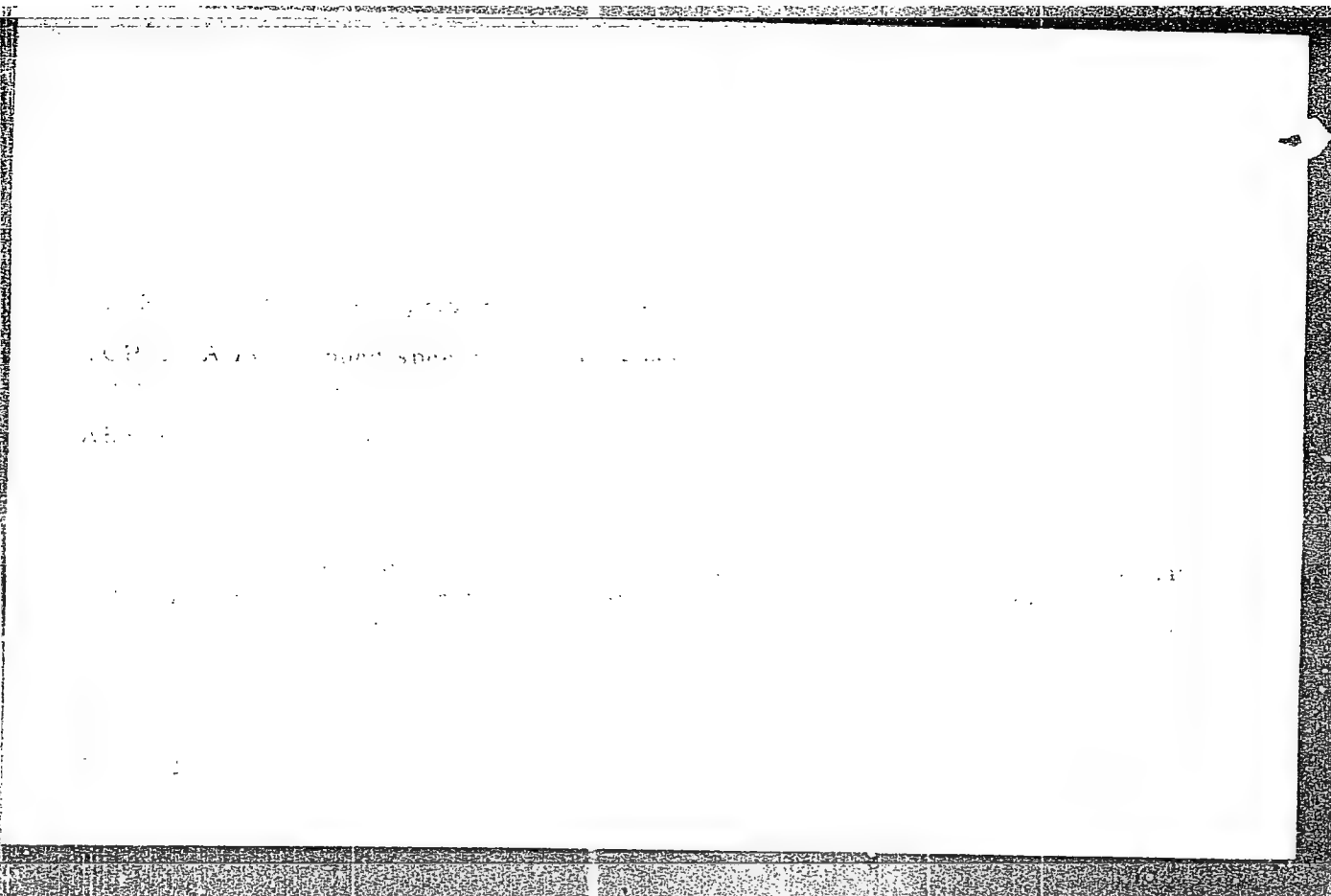   (MIRA 18:9)

1. Akademiya nauk URSR, Kiev.

KONDALEV, Andrey Ivanovich; TIMOFEYEV, B.B., doktor tekhn. nauk,
otv. red.; YEVSEYENKO-MISYURENKO, I.V., red.

[Data form converters] Preobrazovateli formy informatsii.
Kiev, Naukova dumka, 1965. 175 p.   (MIRA 18:8)

NO REF SOV

ZAYTSEV, V.N. [Zaitsev, V.N.] (Kiyev); TIMOFEYEV, B.B. [Tymofeiev, B.B.]
(Kiyev)

Recognition of speech. Avtomatyka 10 no.2:39-44 '65.

(MIRA 18:6)
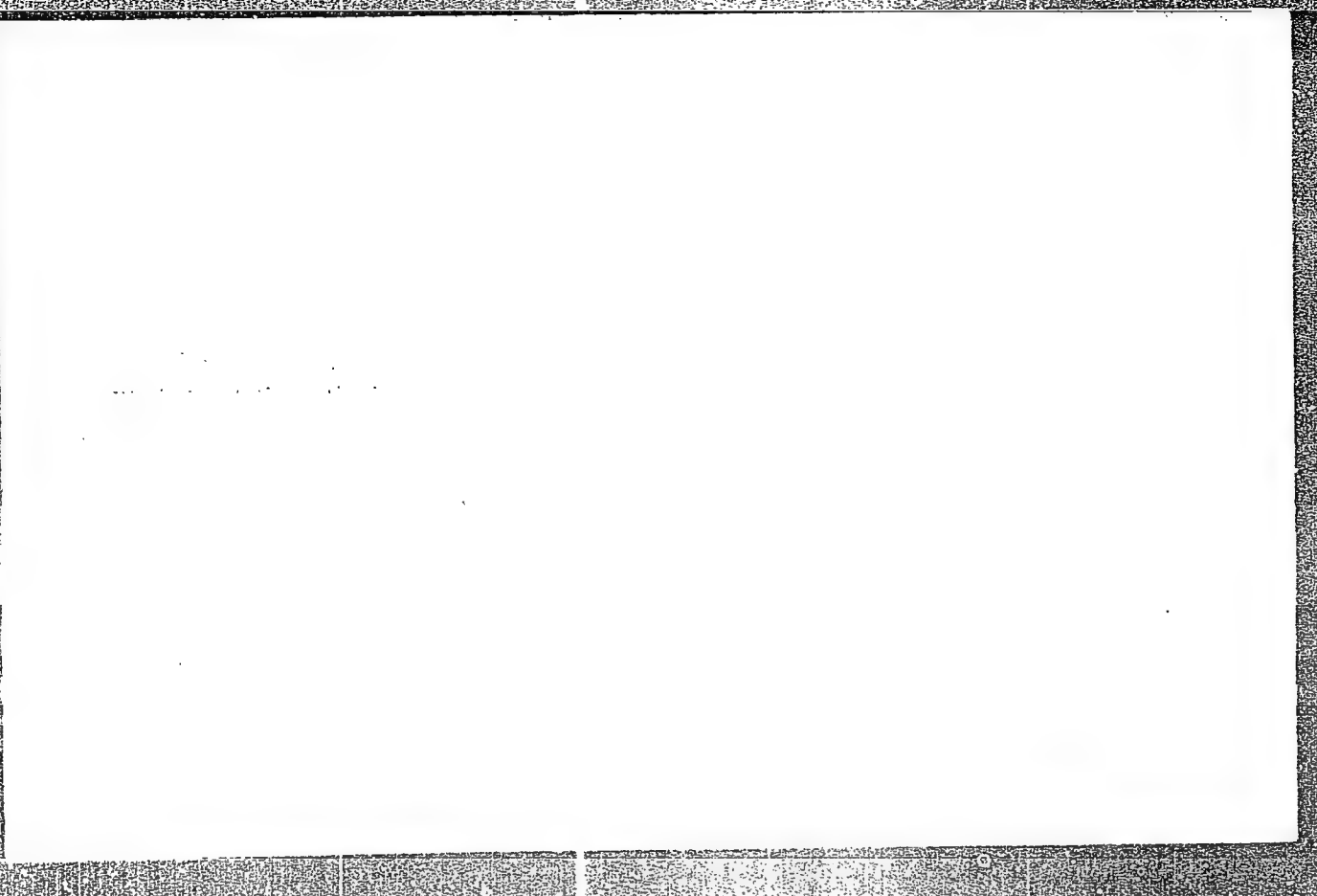
NO REF SOV   OTHER

SOURCE: Avtomatyka, no. 2, 1965, 33-44

TOPIC TAGS: speech recognition, algorithmic language

ABSTRACT: Recognition of speech as a sequence of patterns by means

Card   1/2

Lumbarg

Abstract

level and constant duration. The sound

ation of words differing only in one consonant sound. Orig. art. has 13 formulas.

ASSOCIATION: None

SUBMITTED:

ZAYTSEV, V.G. [Zaitsev, V.H.] (Kiyev); TIMOFEYEV, B.B. [Tymofeiev, B.B.]
(Kiyev)

Device for preliminary transformations in speech cognition.
Avtomatyka 10 no.3:46-54 '65.   (MIRA 18:7)

: T.
(Kiev,

TITLE: A preliminary transformation device for speech recognition

SOURCE: Avtomatyka, no. 3, 1965, 46-54

TOPIC TAGS: speech analysis, speech recognition, computer input device, computer
programming

ABSTRACT: A speech information input device for a computer is described and data
are given from experiments on recognizing

Recognition reliability was about 98%, which indicates that a description of the speech signal by transformation into constant level speech is necessary. These studies showed that time normalization of the appropriate descriptions is

ASSOCIATION: none

TIMOFEYEV, B.B., doktor tekhn. nauk; TARANUKHA, A.I.; PORITSKIY, O.V., kand. tekhn. nauk

Wide-band modulation magnetic blocks with high yield. Avt. i prib. no.4:37-40 O-D '64   (MIRA 18:2)

L O4646-67   EWT(1)/EWT(m)/EWP(t)/ETJ   IJP(c) . JD

ACC NR: AP6024002   SOURCE CODE: UR/0201/66/000/002/0035/0038

AUTHOR: Timofeyev, B. D.

ORG: Institute of Nuclear Power, AN BSSR (Institut yadernoy energetiki AN BSSR)

TITLE: Semiautomatic installation for an experimental investigation of the viscosity of aggressive gases

SOURCE: AN BSSR. Vesti. Seryya fizika-tekhnichnykh navuk, no. 2, 1966, 35-38

TOPIC TAGS: gas viscosity, fluid viscosity measurement, nitrogen oxide, critical point, dissociated gas

ABSTRACT: The author describes an installation developed at IYaE AN BSSR for the investigation of viscosity of aggressive gases (specifically, nitrogen tetroxide). The installation makes possible experiments in the temperature range from 20 to 500C and at pressures up to 100 bar. The viscosity measurement is by the dropping-load method. Although doubts have been expressed concerning the applicability of this method to gases, it is shown that when the equipment is suitably constructed, it gives reliable results. The apparatus was constructed with Professor D. L. Timrot as consultant. In the equipment (Fig. 1) the gas is placed in a heated sealed chamber and the viscosity is determined by the velocity of a freely falling piston in a tube. A radioactive source (Co[60]) serves as a pickup to determine the time of motion of the piston inside the tube. The appropriate electronic circuitry was developed in the isotope laboratory of ITMO AN BSSR. The viscosity is calculated from the rate of drop of the

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ACC NR: AP6024002

piston by means of a formula which is
derived from the analysis of the total
resistance of laminar flow of gas in
an annular gap, with allowance for the
friction, kinetic energy, resistance
due to the expansion of the gas, and
temperature corrections connected with
thermal expansion of the viscosity
meter body and the change in density
of the investigated medium. Other de-
tails of the apparatus and of the mea-
surements are described. The apparatus
was used for experimental investigation
of the viscosity of dissociating N_2O_4
in the temperature range 20 - 520C and
at pressures 1 - 60 bar. In addition,

Fig. 1. Schematic diagram of installation
for the measurement of gas viscosity.

the viscosity of N_2O_4 at the critical point and near the critical region was investi-
gated. The experimental results will be published after the data reduction. The
author thanks Professor D. L. Timrot for consultation and useful advice. Orig. art.
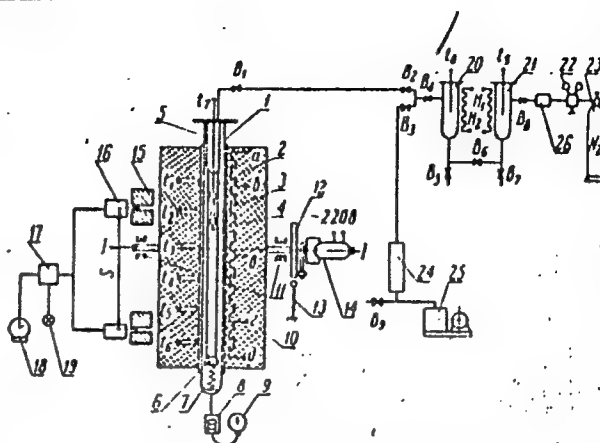has: 2 figures and 1 formula.

SUB CODE: 18, 14/   SUBM DATE: 29Sep65/   ORIG REF: 004/   OTH REF: 003

   kh

Card 2/2

ACC NR: AP7002878   (A)   SOURCE CODE: UR/0201/66/000/004/0027/0031

AUTHOR: Timofeyev, B. D.

ORG: Institute of Nuclear Power Engineering, AN BSSR (Institut yadernoy energetiki AN BSSR)

TITLE: Experimental study of the viscosity of nitrogen tetroxide at atmospheric pressure

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 4, 1966, 27-31

TOPIC TAGS: nitrogen tetroxide, gas viscosity, viscosity measurement

ABSTRACT: A study has been made of the viscosity of nitrogen tetroxide by the falling weight method. This method was first proposed by F. Z. Lawaczeck. However, the original method yields inaccurate results, and certain authors deny its applicability to gas viscosity measurements. Therefore, a new semiautomatic apparatus with guiding rings, based on the falling weight method, has been designed at the Institute of Nuclear Power Engineering, Academy of Sciences BSSR (IYaE AN BSSR). The apparatus is intended for measuring the viscosity of agressive gases at 20—500C and pressures of up to 100 bar. The apparatus and the procedure were described, and a formula for the treat-

Card 1/3

ACC NR: AP7002878
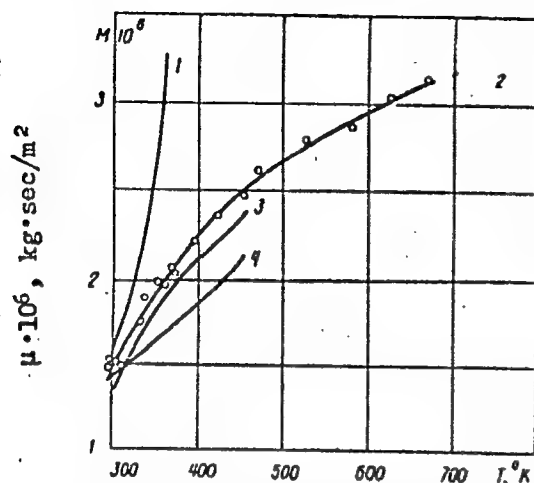
Fig. 1. Experimental viscosity values of $N_2O_4 \rightleftarrows 2NO_2 \rightleftarrows 2NO + O_2$ at 1 atm

1 — Lawaczeck; 2 — IYaE AN BSSR; 3 — Petker and Mason; 4 — Beer.

ment of experimental data was derived in an earlier study by the author (Vestsi AN BSSR, ser. fiz.-tekhn. navuk, no. 2, 1965, 35-38). In the present study, the falling weight method is analyzed, taking into account the design of the new apparatus, and a more accurate formula for

Card 2/3

ACC NR: AP7002878

the treatment of experimental data is derived. The results of the analysis indicated that the method of the IYaE AN BSSR makes it possible to determine the viscosity of N_2O_4 at 25—500C and 1 atm with an accuracy within 3.5%. The experimental viscosity v ies given in Fig. 1 can be used for determining the parameters of the molecular interaction of gases in gas mixtures formed in the dissociation of N_2O_4. Professor D. L. Timrot acted as a consultant in this research. Orig. art. has: 3 figures. [W. A. 77]
[EO]

SUB CODE: 07,20/ SUBM DATE: 04Aug66/ ORIG REF: 007/ OTH REF: 006

Card 3/3

ACC NR: AP6033071   SOURCE CODE: UR/0201/66/000/003/0129/0134

AUTHOR: Bubnov, V. P.; Gusarov, V. N.; Kuleshov, G. G.; Nesterenko,
V. B.; Timofeyev, B. D.

ORG: IYaE AN BSSR

TITLE: Experimental study of P-V-T properties of dissociating
nitrogen tetroxide

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 3,
1966, 129-134

TOPIC TAGS: nitrogen tetroxide, dissociation, P V T property,
specific weight

ABSTRACT: P-V-T properties of dissociating nitrogen tetroxide have
been determined at 420—720C and 25—60 kg/cm^2. The study was under-
taken because of the absence of literature data on these properties
at higher temperatures and pressures, The experimental and calculation
procedures are described in the source, The results of the study are
given in Table 1, These results are in good agreement (difference ± 2%)
ith those obtained by ...

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ACC NR: AP6033071

Table 1. Dependence of $Z_{eff} = P/\gamma RT$ and of the specific weight (γ) of dissociating nitrogen tetroxide on temperature and pressure

T, °K	P, kg/cm²							
	25	30	35	40	45	50	55	60
	Z_{eff}							
420	1,615	1,510	1,404	1,293	1,189	1,080	0,982	0,867
430	1,706	1,624	1,535	1,435	1,330	1,228	1,144	1,040
440	1,803	1,721	1,632	1,540	1,448	1,358	1,280	1,179
450	1,879	1,796	1,717	1,636	1,555	1,475	1,395	1,309
460	1,941	1,872	1,796	1,723	1,647	1,572	1,501	1,424
470	2,002	1,942	1,867	1,799	1,730	1,662	1,592	1,522
480	2,056	1,993	1,928	1,868	1,803	1,743	1,686	1,628
490	2,098	2,043	1,985	1,928	1,870	1,816	1,758	1,698
500	2,135	2,084	2,029	1,974	1,918	1,871	1,814	1,759
510	2,166	2,117	2,062	2,016	1,966	1,917	1,864	1,812
520	2,187	2,142	2,093	2,042	2,993	1,946	1,898	1,851
530	2,211	2,170	2,120	2,069	2,023	1,979	1,930	1,888
540	2,230	2,187	2,142	2,094	2,050	2,004	1,957	1,918
550	2,248	2,211	2,167	2,117	2,071	2,025	1,981	1,939
560	2,268	2,233	2,182	2,136	2,091	2,045	2,001	1,963
570	2,279	2,244	2,202	2,151	2,106	2,056	2,021	1,983
580	2,293	2,259	2,217	2,166	2,124	2,079	2,042	2,001
590	2,307	2,269	2,230	2,179	2,139	2,096	2,061	2,020
600	2,318	2,279	2,244	2,192	2,152	2,111	2,075	2,036
610	2,330	2,287	2,253	2,201	2,157	2,124	2,090	2,054
620	2,338	2,298	2,259	2,210	2,168	2,136	2,101	2,067
630	2,349	2,309	2,267	2,219	2,183	2,149	2,119	2,086
640	2,354	2,317	2,274	2,227	2,194	2,161	2,130	2,096
650	2,361	2,326	2,282	2,244	2,204	2,167	2,140	2,106

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ACC NR: AP6033071

Table 1. (Cont.)

660	2,368	2,331	2,289	2,251	2,213	2,179	2,148	2,114
670	2,372	2,336	2,298	2,259	2,223	2,186	2,156	2,125
680	2,375	2,341	2,304	2,268	2,233	2,198	2,164	2,135
690	2,378	2,346	2,311	2,272	2,243	2,206	2,172	2,144
700	2,381	2,351	2,318	2,281	2,250	2,213	2,181	2,152
710	2,383	2,357	2,324	2,290	2,257	2,220	2,189	2,160
720	2,386	2,362	2,330	2,298	2,264	2,226	2,197	2,168

420	40,0	51,3	64,4	79,9	97,8	119,6	144,7	178,8
430	37,0	46,6	57,5	70,3	85,4	102,7	121,3	145,6
440	34,2	43,0	52,9	64,0	76,6	90,8	106,0	125,5
450	32,1	40,3	49,2	59,0	69,8	81,7	95,1	110,5
460	30,4	37,8	46,0	54,8	64,5	75,0	86,4	99,4
470	28,8	35,7	43,3	51,3	60,0	69,5	79,8	91,0
480	27,5	34,0	41,0	48,4	56,4	64,8	73,7	83,3
490	26,4	32,5	39,0	45,9	53,3	61,0	69,3	78,2
500	25,4	31,2	37,4	44,0	50,9	58,0	65,8	74,0
510	24,6	30,2	36,1	42,2	48,7	55,5	62,8	70,4
520	23,8	29,2	34,9	40,9	47,1	53,6	60,5	67,6
530	23,2	28,3	33,8	39,6	45,5	51,7	58,3	65,1
540	22,5	27,6	32,8	38,4	44,1	50,1	56,5	62,9
550	21,9	26,8	31,9	37,3	42,9	48,7	54,8	61,0
560	21,4	26,0	31,1	36,3	41,7	47,4	53,2	59,2
570	20,9	25,4	30,3	35,4	40,7	46,1	51,8	57,6
580	20,5	24,8	29,5	34,5	39,6	45,0	50,4	56,1
590	19,9	24,3	28,9	33,8	38,7	43,9	49,1	54,6
600	19,5	23,8	28,2	33,0	37,8	42,8	47,9	53,3
610	19,1	23,3	27,6	32,3	37,0	41,9	46,8	52,0
620	18,7	22,8	27,1	31,7	36,3	41,0	45,8	50,8
630	18,3	22,4	26,6	31,0	35,5	40,1	44,7	49,5
640	18,0	22,0	26,1	30,5	34,8	39,2	43,8	48,5

Card 3/4

ACC NR: AP6033071

Table 1. (Cont.)

650	17.7	21.5	25.6	29.8	31.1	38.5	42.9	47.6
660	17.4	21.2	25.2	29.2	33.4	37.7	42.1	46.7
670	17.1	20.8	24.7	28.7	32.8	37.0	41.3	45.7
680	16.8	20.4	24.2	28.1	32.2	36.3	40.6	44.8
690	16.5	20.1	23.8	27.7	31.6	35.6	39.8	44.0
700	16.3	19.8	23.4	27.2	31.0	35.0	39.1	43.2
710	16.0	19.5	23.0	26.7	30.5	34.4	38.4	42.5
720	15.8	19.1	22.6	26.2	30.0	33.9	37.7	41.7

with those obtained by W. G. Schlinger and B. H. Sage (in the range of
temperatures and pressures studied by these authors). Orig. art. has
1 table.

SUB CODE: 07/ SUBM DATE: 09Mar66/ ORIG REF: 006/ ORIG REF: 004

Card 4/4

TIMOFEYEV, B.D.; SHARYPIN, V.I.

Installation for experimental determination of viscosity of
organic heat agents with a high melting point. Inzh.-fiz.
zhur. 6 no.10:109-111 O '63.   (MIRA 16:11)

ACC NR: AP7002884   (A)   SOURCE CODE: UR/0201/66/000/004/0123/0125

AUTHOR: Nesterenko, V. B.; Timofeyev, B. D.; Il'yukhin, Yu. D.

ORG: Institute of Nuclear Power Engineering, AN BSSR (Institut yadernoy energetiki AN BSSR)

TITLE: Experimental study of the heat capacity of nitrogen tetroxide in equilibrium dissociation

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 4, 1966, 123-125

TOPIC TAGS: nitrogen tetroxide, heat capacity

ABSTRACT: The effective heat capacity of N_2O_4 dissociating at 1 atm and 300—400K has been determined experimentally. The experiments were carried out in a continuous-flow calorimeter, equipped with an isothermal jacket, designed at the Institute of Nuclear Power Engineering, Academy of Sciences BSSR (IYaE AN BSSR). The apparatus and the procedure are described in the source. The effective heat capacity at constant pressure was calculated from the formula
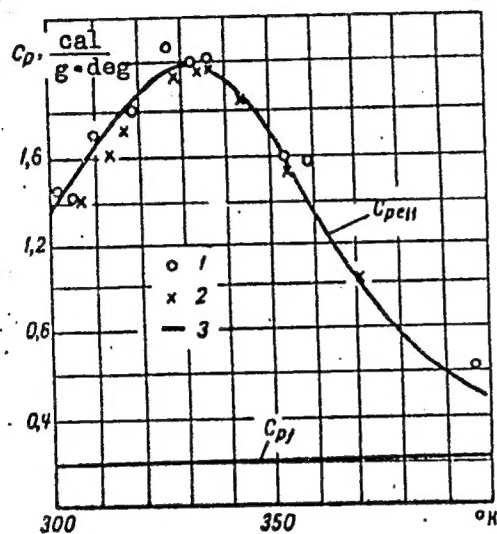
$$c_{p\,eff} = \frac{Q - q}{G \Delta t},$$

Card 1/3

ACC NR: AP7002884

where Q is the amount of heat entering the calorimeter, G is the gaseous
N_2O_4 flow rate in the calorimeter, Δt is the gas temperature rise in the
calorimeter, and q is the total heat loss in the calorimeter. This loss

Calculated and experimental values
of the heat capacity at constant
pressure of N_2O_4 in equilibrium
dissociation at 1 atm

1 – Data of the IYaE AN BSSR;
2 – data of McCallum; 3 – data
calculated by the method of
Mishina and Nesterenko.

Card 2/3

ACC NR: AP7002884

was determined experimentally; it did not exceed 15% of the amount of the heat entering the calorimeter. The experimental heat capacity values are given in the figure together with the experimental heat capacity values of McCallum and with the heat capacity values calculated by the method of L. V. Mishina and V. B. Nesterenko (Vestsi AN BSSR, Ser. fiz.-tekhn. navuk, no. 2, 1965). The results of the study indicated that the method of the IYaE AN BSSR makes it possible to determine the effective heat capacity of N_2O_4 with an accuracy within 2.6%. Orig. art. has: 2 figures. [W. A. 77]
[BO]

SUB CODE: 07, 20 / SUBM DATE: 30Jun66/ ORIG REF: 003/ OTH REF: 002

Card 2/3

TIMOFEYEV, B.F.

   "Spores and phytoplankton of the Proterozoic and the Cambrian."

Report to be submitted to the Intl. Conf. on Palynology, Tucson, Arizona
23-27 Apr 1962.

Leningrad, Petroleum Inst., All-Union Petroleum Scientific Research Geological
Prospecting Inst.

TIMOFEEV, B.G.

... khozyaystvo Turkmenskoy SSR; statisticheskiy ...
National Economy of the Turkmen S.S.R.; Statistical ...
Ashkhabad, Gosstatizdat, 1957. 171 p. 5,000 copies print.

Ed.: Charyyev, A.; Tech. Ed.: Strel'tsov, I. M.

PURPOSE: This book contains a series of statistical tables ...
is intended to provide statistical data on the growth ...
the national economy of the Turkmen S.S.R.

COVERAGE: The tables which are included in this book give basic data
on the development of the national economy of the Turkmen
S.S.R. for various years during the period between 1913 ...
1956, using 1913, 1928 and 1940 as a basis of compari ...